

# GeometryQuiz07: Transformations

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**Date :** 2023

## Question 1

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Reflect the point  $(3, 4)$  over the  $y$ -axis and find its new coordinates.

## Question 2

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Rotate the point  $(1, 2)$   $90^\circ$  clockwise about the origin. What are the coordinates of the image?

## Question 3

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Translate the point  $(5, -3)$  by the vector  $(-2, 4)$ . What are the new coordinates?

## Question 4

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If a figure is scaled by a factor of 2, what happens to the area of the figure?

## Question 5

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Reflect the point  $(-4, -5)$  over the line  $y = x$  and find its new coordinates.

## Question 6

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Rotate the triangle with vertices  $(1, 0)$ ,  $(0, 1)$ , and  $(-1, 0)$   $180^\circ$  about the origin. What are the new coordinates of each vertex?

## Question 7

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Translate the point  $(-3, 2)$  by the vector  $(4, -1)$  and find its new position.

### Question 8

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A triangle is rotated  $90^\circ$  counterclockwise about the origin. What effect does this have on the orientation of the triangle?

### Question 9

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Find the coordinates of the image of  $(2, -3)$  after a reflection over the x-axis.

### Question 10

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If a shape is scaled by a factor of  $1/2$ , what happens to the perimeter of the shape?